DELAWARE GEOMETRY · UNIT 1 · 25 QUESTIONS

Congruence and Similarity — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Two angles of a triangle measure 62° and 49°. The third angle measures**

- A 79°
- B 69°
- C 59°
- D 111°

Understand It with Pulse | Flag a mistake

2 An exterior angle of a triangle has remote interior angles measuring 64° and 89°. The exterior angle measures

- **A** 173°
- **B** 133°
- **C** 153°
- **D** 27°

Understand It with Pulse | Flag a mistake

3 In a triangle, a midsegment is parallel to a base of length 16. The length of the midsegment is

ANSWER _____

Understand It with Pulse | Flag a mistake

4 Two similar figures have a linear scale factor of 1:2. The smaller figure has perimeter 20. The larger perimeter is

ANSWER _____

Understand It with Pulse | Flag a mistake

5 **Two similar figures have a linear scale factor of 1:2. The smaller figure has area 12. The larger area is**

ANSWER _____

Understand It with Pulse | Flag a mistake

6 **In a triangle, a midsegment is parallel to a base of length 14. The length of the midsegment is**

A 7

B 14

C 28

D 3.5

Understand It with Pulse | Flag a mistake

7 **The point (4, 1) rotated 90 degrees counterclockwise about the origin maps to**

- A (1, -4)
- B (-1, 4)
- C (-4, -1)
- D (1, 4)

Understand It with Pulse | Flag a mistake

8 **Under the translation (x + -1, y + -2), the point (-2, -3) maps to**

- A (-1, -1)
- B (-4, -4)
- C (-3, -5)
- D (-2, -3)

Understand It with Pulse | Flag a mistake

9 **A right triangle has hypotenuse 10 and one leg of length 6. The other leg has length**

A 10

B 7

C 9

D 8

Understand It with Pulse | Flag a mistake

10 **Two similar triangles have corresponding sides in the ratio 1:2. A side of the smaller triangle is 7. The corresponding side is**

ANSWER _____

Understand It with Pulse | Flag a mistake

11 **Two triangles are described in which two pairs of corresponding angles are equal and a pair of non included sides is equal. Which congruence criterion applies?**

- A SSS
- B SAS
- C AAS
- D ASA

Understand It with Pulse | Flag a mistake

12 **Two angles of a triangle measure 52° and 51°. The third angle measures**

- A 87°
- B 67°
- C 103°
- D 77°

Understand It with Pulse | Flag a mistake

13 **An exterior angle of a triangle has remote interior angles measuring 34° and 57°. The exterior angle measures**

A 91°

B 111°

C 71°

D 89°

Understand It with Pulse | Flag a mistake

14 **An isosceles triangle has a vertex angle of 80°. Each base angle measures**

A 60°

B 50°

C 40°

D 80°

Understand It with Pulse | Flag a mistake

15 **In a triangle, a midsegment is parallel to a base of length 14. The length of the midsegment is**

ANSWER _____

Understand It with Pulse | Flag a mistake

16 **Two similar figures have a linear scale factor of 1:2. The smaller figure has perimeter 10. The larger perimeter is**

ANSWER _____

Understand It with Pulse | Flag a mistake

17 **Two similar figures have a linear scale factor of 1:4. The smaller figure has area 12. The larger area is**

ANSWER _____

Understand It with Pulse | Flag a mistake

18 **The point (1, 2) reflected across the x-axis maps to**

A (-1, 2)

B (-1, -2)

C (1, -2)

D (2, 1)

Understand It with Pulse | Flag a mistake

19 **The point (4, 1) rotated 90 degrees counterclockwise about the origin maps to**

A (1, -4)

B (-4, -1)

C (1, 4)

D (-1, 4)

Understand It with Pulse | Flag a mistake

20 **Under the translation (x + 0, y + 2), the point (2, -4) maps to**

- A (2, -2)
- B (2, -6)
- C (4, -4)
- D (2, -4)

Understand It with Pulse | Flag a mistake

21 **A right triangle has legs of lengths 6 and 8. The hypotenuse has length**

- A 12
- B 10
- C 9
- D 14

Understand It with Pulse | Flag a mistake

22 **Two similar triangles have corresponding sides in the ratio 1:2. A side of the smaller triangle is 6. The corresponding side is**

ANSWER _____

Understand It with Pulse | Flag a mistake

23 **Two triangles are described in which two pairs of corresponding angles are equal and the included sides are equal. Which congruence criterion applies?**

A ASA

B SSS

C SAS

D AAS

Understand It with Pulse | Flag a mistake

24 **Two angles of a triangle measure 25° and 58°. The third angle measures**

- A 107°
- B 97°
- C 87°
- D 83°

Understand It with Pulse | Flag a mistake

25 **An exterior angle of a triangle has remote interior angles measuring 66° and 82°. The exterior angle measures**

- A 168°
- B 128°
- C 148°
- D 32°

Understand It with Pulse | Flag a mistake

ANSWER KEY

1. B
2. C
3. 8
4. 40
5. 48
6. A
7. B
8. C
9. D
10. 14
11. C
12. D
13. A
14. B
15. 7
16. 20
17. 192
18. C
19. D
20. A
21. B
22. 12
23. A
24. B
25. C

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